

AD715514

THE UNIVERSITY OF MICHIGAN

PUBLICATIONS OF THE CONCOMP PROJECT

1966-1970

CONCOMP: Research in Conversational Use of Computers
F.H. Westervelt, Project Director
ORA Project 07449

supported by

ADVANCED RESEARCH PROJECTS AGENCY
DEPARTMENT OF DEFENSE
WASHINGTON, D.C.

REC'D
DEC 14 1970
RECEIVED
A

CONTRACT NO. DA-49-083 OSA-3050
ARPA ORDER NO. 716

administered through

OFFICE OF RESEARCH ADMINISTRATION ANN ARBOR

October 1970

Reproduced by
NATIONAL TECHNICAL
INFORMATION SERVICE
Springfield, Va. 22151

10
100
200



CONCOMP PROJECT

Research in the Conversational Use of Computers

611 Church St. Ann Arbor, Mich. 48104

FOREWORD

The publications listed herein were produced by members of the Concomp Project between June 1966 and October 1970, and copies distributed free of charge to all who requested them. The Concomp Project is now officially terminated, and we are no longer able to comply with requests for publications. However, most Concomp publications have been registered with the Defense Documentation Center, and qualified requesters may obtain copies by writing to:

Defense Documentation Center
Cameron Station
Alexandria, Virginia 22314

F. H. Westervelt, Director
Concomp Project
15 October 1970

CONCOMP PROJECT TECHNICAL REPORTS

1. Mowshowitz, A., Entropy and the Complexity of Graphs, Technical Report 1, August 1967, 120 pp. (doctoral dissertation).
2. Sibley, E.H., The Engineering Assistant: Design of a Symbol Manipulation System, Technical Report 2, August 1967, 31 pp.
3. Childs, D.L., Description of a Set-Theoretic Data Structure, Technical Report 3, March 1968, 27 pp.
4. Pinkerton, T.B., Program Behavior and Control in Virtual Storage Computer Systems, Technical Report 4, April 1968, 160 pp. (doctoral dissertation).
5. Ash, W., and Sibley, E.H., TRAMP: A Relational Memory with an Associative Base, Technical Report 5, May 1968, 80 pp.
6. Childs, D.L., Feasibility of a Set-Theoretic Data Structure: A General Structure Based on a Re-constituted Definition of a Relation, Technical Report 6, August 1968, 40 pp.
7. Mills, D.L., The Syntactic Structure of MAD/I, Technical Report 7, June 1968, 91 pp.
8. Mills, D.L., The Data Concentrator, Technical Report 8, May 1968, 113 pp.
9. Allan, J., Man-Computer Synergism for Decision-making in the System Design Process, Technical Report 9, June 1968, 194 pp. (doctoral dissertation).
10. Frantz, D.R., Brender, R.F., and Foy, J.L., Jr., LOCOS: A Multiprogramming Monitor for the DEC PDP-7, Technical Report 10, October 1968, 122 pp.
11. Brender, R.F., and Foy, J.L., Jr., and Schunior, T.W., Specialized System Software for Interacting DEC PDP-7 and IBM 1800 Computers, Technical Report 11, December 1968, 95 pp.
12. Brender, R.F., and Foy, J.L., Jr., Flexible High-Speed Interface between IBM 1800 and DEC PDP-7 Computers, Technical Report 12, October 1968, 21 pp.

CONCOMP PROJECT TECHNICAL REPORTS, continued

13. Wallace, V.L., and Irani, K.B., Network Models for the Design of Stochastic Service Systems, Technical Report 13 (also Systems Engineering Laboratory Technical Report 30), November 1968, 55 pp.
14. Wallace, V.L., and Irani, K.B., A System for the Solution of Simple Stochastic Networks, Technical Report 14, April 1969, 137 pp.; also published as Systems Engineering Laboratory Technical Report 31.
15. Jackson, J.H., An Executive System for a DEC 339 Computer Display Terminal, Technical Report 15, March 1969, 70 pp.; also published as Systems Engineering Laboratory Report SEL-32-T.
16. DiGiuseppe, J., A Survey of Pictorial Data-Compression Techniques, Technical Report 16, March 1969, 60 pp.
17. Ash, W.L., A Compiler for an Associative Object Machine, Technical Report 17, May 1969, 55 pp.
18. Chace, M.A., A Network Variational Basis for Generalized Computer Representation of Multi-Freedom, Constrained, Mechanical Systems, Technical Report 18, May 1969, 38 pp.
19. Mills, D.L., Multiprogramming in a Small-Systems Environment, Technical Report 19, May 1969, 41 pp.
20. Mills, D.L., Topics in Computer Communication Systems, Technical Report 20, May 1969, 106 pp.
21. Wallace, V.L., On the Representation of Markovian Systems by Network Models, Technical Report 21, December 1969, 112 pp; also published as Systems Engineering Technical Report 42.
22. Randall, S., Uppal, N., McClain, G., and Blinn, J., Implementation of the Queue Analyzer System (QAS) on the IBM 360/67, May 1970, 152 pp.
23. Jackson, J.H., SEIMA: A Conversational System for the Graphical Specification of Markovian Queueing Networks, October 1969, 76 pp.
24. Blinn, J., Systems Engineering Laboratory Circuit-Drawing Program, Technical Report 24, July 1970, 24 pp.; also published as Systems Engineering Laboratory Technical Report 47.

CONCOMP PROJECT TECHNICAL REPORTS, continued

25. Brender, R.F., A Programming System for the Simulation of Cellular Spaces, Technical Report 25, January 1970, 160 pp. (doctoral dissertation).
26. Chace, M.A., and Korybalski, M.E., Computer Graphics in the Dynamic Analysis of Mechanical Networks, Technical Report 26, February 1970, 50 pp.
27. Smith, D., The Audio Response Unit's User's Guide, Technical Report 27, July 1970.
28. DiGuseppe, J.L., Gerstenberger, W.S., and Mills, D.L., Data Concentrator User's Guide, Technical Report 28, April 1970, 88 pp.
29. Fronczak, E., Digital Plotting System, Technical Report 29, August 1970, 45 pp.
30. Shadko, F., and Herzog, B., DRAWL 70: A Computer Graphics Language, Technical Report 30, August 1970, 145 pp.
31. Brender, R.F., et al., DEC PDP-7/IBM 1800 High-Speed Interface, Technical Report 31, August 1970, 135 pp.
32. Bolas, B., Springer, A., and Srodawa, R., The MAD/I Manual, Technical Report 32, August 1970, 198 pp.
33. Wagman, Richard, The DF (Display File) Routines User's Guide, Technical Report 33, September 1970, 8 pp. + appendices.

CONCOMP PROJECT MEMORANDA

1. Galler, B., MAD/I: Preliminary Draft, November 1966, 20 pp.
2. Lundstrom, S., Comparative Evaluation of Digital Equipment Corporation's 340 and 330 Display Controls, June 1966, 17 pp.
3. Lundstrom, S., DEC 338 Light Pen Sense Indicator, November 1966, 7 pp.
4. Lundstrom, S., PDP8-103A Dataphone Interface, November 1966, 7 pp.
5. Mills, D., RAMP: A PDP-8 Multiprogramming System for Real-Time Device Control, May 1967, 24 pp.
6. Frantz, D., PDP-8/338 Executive System, June 1967, 35 pp.
7. Brender, R., Use of DDT with "Interrupts On" Programs, July 1967, 9 pp.
8. Lundstrom, S., and Callan, D., PDP-8 Simulator, July 1967, 27 pp.
9. Lundstrom, S., Engineering Design Report: PDP-8/CRO1B Card Reader Interface, Memorandum 9, August 1967, 8 pp.
10. Lundstrom, S., Engineering Design Report: PDP-7/Modified 338 Display Interface, Memorandum 10, August 1967, 23 pp.
11. Mills, D., I/O Extensions to RAMP, Memorandum 11, October 1967, 32 pp.
12. Powers, V.M., PDP-8 Assembler, Memorandum 12, November 1967, 13 pp.
13. Mills, D., System 360 Interface Engineering Report, Memorandum 13, March 1968, 166 pp.
14. Burkhalter, K., DEXEMBLER, Memorandum 14, February 1968, 13 pp.
15. Wood, D.E., A 201A Data Communication Adaptor for the PDP-8, Memorandum 15, February 1968, 134 pp.

CONCOMP PROJECT MEMORANDA, continued

16. Burkhalter, K., PDP-8 to 103A Dataphone and/or Online Teletype Interface, Memorandum 16, April 1968, 20 pp.
17. Mills, D.L., and Powers, V.M., PDP-8 Program Relocation: Concepts and Facilities, Memorandum 17, February 1968, 22 pp.
18. Pinkerton, T.B., The MTS Data Collection Facility, Memorandum 18, June 1968, 13 pp.
19. Burkhalter, D.E., A Cyclic Check Computer for Error Detection, Memorandum 19, May 1968, 33 pp.
20. Powers, V.M., Mills, D.L., and Laurance, N., An Assembly Language System for DEC Minicomputers, Memorandum 20, May 1969, 64 pp.
21. Powers, V.M., Portaterm Software, Memorandum 21, March 1969, 20 pp.
22. McCreery, D.R., The Electrowriter as a Computer I/O Device, Memorandum 22, March 1969, 40 pp.
23. Cocanower, A.B., The DF Routines User's Guide, Memorandum 23, May 1969, 5 pp. + appendices.
24. Mills, D.L., RAMP Architecture in a Utility Calculator System, Memorandum 24, May 1969, 24 pp.
25. Jackson, J.H., and Blinn, J.F., Modifications to the SEL Executive System, Memorandum 25, February 1970, 8 pp.
26. Guskin, J., and Dingwall, T., The Discrete, Logical Design, Simulation System, Memorandum 26, August 1970,
27. MOMS: Michigan's Own Mathematical System, R. Taylor, ed., Memorandum 27, March 1970, 190 pp.
28. Goodrich, Mrs. S.D., CAMA: Define-Problem Command, Memorandum 28, June 1970, 31 pp.
29. Julyk, L., Wolf, L.W., The CAMA Data Structure, Memorandum 29, August 1970, 100 pp.
30. Julyk, L., The CAMA Operating System, Memorandum 30, August 1970, 100 pp.

CONCOMP PROJECT MEMORANDA, continued

31. Springer, A., Defaults and Block Structure in the MAD/I Language, Memorandum 31, August 1970, 45 pp.
32. Srodawa, R., Sample Definitional Facility in MAD/I, Memorandum 32, August 1970, 65 pp.
33. Wolf, L.W., CAMA (Computer-aided Mathematical Analysis): A General Description, Memorandum 33, August 1970, 30 pp.
34. Gerstenberger, W.S., and Taylor, R.W., Graphics RAMP User's Manual, Memorandum 34, August 1970, 50 pp.
35. Dingwall, T., Julyk, L., and Wolf, L.W., The CAMA Macro Processor, Memorandum 35, August 1970, 31 pp.
36. Dingwall, T.J., Julyk, L.J., and Wolf, L.W., The CAMA Interpreter, Memorandum 36, August 1970, 18 pp.